

Safety Attribute Inspection (SAI) Data Collection Tool

4.1.2 Maintenance Certificate Requirements (AW)

ELEMENT SUMMARY INFORMATION

Purpose of this Element (certificate holder's responsibility):

- To ensure that personnel directly in charge of maintenance, preventative maintenance, or alterations are appropriately certificated and adequately trained.

Objective (FAA oversight):

- To determine if the certificate holder's Maintenance Certificate Requirements process meets all applicable requirements of Title 14 of the Code of the Federal Aviation Regulations (14 CFR) and FAA policies.
- To determine if the certificate holder's Maintenance Certificate Requirements process incorporates the safety attributes.
- To identify any shortfalls in the certificate holder's Maintenance Certificate Requirements process.

Specific Instructions:

- Intentionally left blank

SUPPLEMENTAL INFORMATION

Specific Regulatory Requirements (SRRs):

- SRRs:
 - 121.135(a)(1)
 - 121.135(b)(1)
 - 121.135(b)(2)
 - 121.135(b)(3)
 - 121.371(a)
 - 121.375
 - 121.378(a)
 - 121.378(b)
 - 121.383(a)(1)
 - 121.709(b)(3)

Related CFRs & FAA Policy/Guidance:

- Related CFRs:
 - Intentionally left blank
- FAA Policy/Guidance:
 - Intentionally left blank.

SAI SECTION 1 - PROCEDURES ATTRIBUTE

Objective: Procedures, instructions, and information contained in the certificate holder's manual are documented methods for accomplishing a process. Policies contained in the certificate holder's manual should establish the certificate holder's compliance posture. Policies may not be stand-alone statements but may be embedded within procedures, instructions, or information regarding a particular regulatory requirement. The questions in this section of the data collection tool (DCT) are designed to assist the inspector in determining if the certificate holder's manual has documented or prescribed methods of accomplishing the process requirements that provide answers to the associated questions regarding who, what, when, where, and how. This section contains policy questions, procedural questions, and instructional or informational questions pertaining to various types of certificate holder requirements such as actions, prohibitions, or resources (i.e., personnel, facilities, equipment, technical data, etc.).

Tasks

	To meet this objective, the inspector must accomplish the following tasks:
1.	Review the information listed in the Supplemental Information section of this DCT.
2.	Review the duties and responsibilities for management and other personnel identified by the certificate holder who accomplish the Maintenance Certificate Requirements process.
3.	Review the certificate holder's manual to ensure that it contains policies, procedures, instructions, and information necessary for the Maintenance Certificate Requirements process.

Questions

	To meet this objective, the inspector must answer the following questions:	
1.	Does the content of the certificate holder's manual meet the specific regulatory and FAA policy requirements for a Maintenance Certificate Requirements process:	
1.1.	<p>Does the certificate holder's manual specify that each person who is directly in charge of maintenance, preventive maintenance, or alteration must hold an appropriate airman certificate?</p> <p>SRRs: 121.378(a); 121.383(a)(1)</p> <p><i>Related Design JTIs:</i></p> <ol style="list-style-type: none"> Check that the Certificate Holder's manual contains instructions and information personnel who are directly in charge of maintenance, preventative maintenance, or alterations, hold an appropriate airman certificate. <p>Sources: 121.135(a)(1); 121.378(a)</p> <p>Interfaces: 1.3.1(AW); 1.3.4(AW); 1.3.6(AW); 2.1.1(AW); 2.1.1(OP); 4.2.1(AW); 4.4.4(AW)</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
1.2.	<p>Does the certificate holder's manual specify that each person who is directly in charge of maintenance, preventive maintenance, or alterations be available for consultation and decision on matters requiring instruction or decision from higher authority than that of the persons performing the work?</p> <p>SRRs: 121.378(b)</p> <p><i>Related Design JTIs:</i></p> <ol style="list-style-type: none"> Check that the Certificate Holder's manual include instructions and information necessary to allow each person who is "directly in charge" to perform the duty and responsibility to be available for consultation and decision making regarding matters requiring instruction or decision from 	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain

	<p>higher authority than that of the persons performing the work.</p> <p><i>Sources:</i> 121.135(a)(1); 121.378(b)</p> <p><i>Interfaces:</i> 1.3.1(AW); 1.3.4(AW); 1.3.6(AW); 2.1.1(AW); 2.1.1(OP); 4.4.4(AW); 7.1.1(AW); 7.1.2(AW)</p>	
1.3.	<p>Does the certificate holder's manual specify that each person who signs an aircraft log entry must be properly certificated?</p> <p>SRRs: 121.709(b)(3)</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
1.4.	<p>Does the certificate holder's manual specify that each person who performs Required Inspections must be appropriately certificated?</p> <p>SRRs: 121.371(a); 121.378(a)</p> <p><i>Related Design JTIs:</i></p> <ol style="list-style-type: none"> 1. Check that the Certificate Holder's manual include instructions and information necessary for each person who is performing required inspections to hold an appropriate airman certificate. <p><i>Sources:</i> 121.135(a)(1); 121.378(a)</p> <p><i>Interfaces:</i> 1.3.1(AW); 1.3.4(AW); 1.3.6(AW); 2.1.1(AW); 2.1.1(OP); 4.2.1(AW); 4.4.4(AW)</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
1.5.	<p>Does the certificate holder's manual specify that each person who signs the aircraft airworthiness release must be properly certificated?</p> <p>SRRs: 121.709(b)(3)</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
1.6.	<p>Does the certificate holder's manual specify that each person who is directly in charge of maintenance must be adequately trained?</p> <p>SRRs: 121.375</p> <p><i>Related Design JTIs:</i></p> <ol style="list-style-type: none"> 1. Check that the Certificate Holder's training program ensures that each person (including inspection personnel) who determines the adequacy of work done is fully informed about procedures and techniques and new equipment in use and is competent to perform his/her duties. <p><i>Sources:</i> 121.375</p> <p><i>Interfaces:</i> 1.3.2(AW); 2.1.1(AW); 2.1.1(OP); 4.2.1(AW); 4.2.2(AW)</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
1.7.	<p>Does the certificate holder's Maintenance Certificate Requirements process comply with the related requirements of 14 CFR Part 43.17(c)?</p> <p><i>Related Design JTIs:</i></p> <ol style="list-style-type: none"> 1. Check that the Certificate Holder's manual include instructions and information for personnel concerned which permits a person holding a valid Canadian Department of Transport license (Aircraft Maintenance Engineer) and appropriate ratings with respect to a U.S.-registered aircraft located in Canada, to perform maintenance, preventative maintenance, alterations and approve the affected aircraft for return to service. <p><i>Sources:</i> 121.135(a)(1); 43.17(c)(1)</p> <p><i>Interfaces:</i> 1.1.1(AW); 1.3.1(AW); 1.3.6(AW); 1.3.7(AW); 2.1.1(AW); 2.1.1(OP)</p> <ol style="list-style-type: none"> 2. Check that the Certificate Holder's manual include instructions and information for personnel concerned to permit an Approved Maintenance Organization (AMO), whose system of quality control for the maintenance, alteration, and inspection of aeronautical products has 	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain <input type="checkbox"/> Not Applicable

	<p>been approved by the Canadian Department of transport, with respect to a U.S. - registered aircraft located in Canada or other U.S. aeronautical products transported to Canada from the United States, to perform maintenance, preventative maintenance, alterations and approve the affected products for return to service.</p> <p><i>Sources:</i> 121.135(a)(1); 43.17(c)(2)</p> <p><i>Interfaces:</i> 1.1.1(AW); 1.3.1(AW); 1.3.6(AW); 1.3.7(AW); 2.1.1(AW); 2.1.1(OP)</p> <p>3. Check that the Certificate Holder's manual include instructions and information for personnel concerned to permit a person who is an authorized employee of a Approved Maintenance Organization (AMO) performing work for such a company may, with respect to a U.S. - registered aircraft located in Canada or other U.S. aeronautical products transported to Canada from the United States, perform maintenance, preventative maintenance, alterations and approve the affected products for return to service.</p> <p><i>Sources:</i> 121.135(b)(1); 43.17(c)(2)</p> <p><i>Interfaces:</i> 1.1.1(AW); 1.3.1(AW); 1.3.6(AW); 1.3.7(AW); 2.1.1(AW); 2.1.1(OP)</p>	
2.	<p>Does the certificate holder's manual contain general policies for the Maintenance Certificate Requirements process that comply with the SRRs?</p> <p>SRRs: 121.135(b)(1)</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
3.	<p>Does the certificate holder's manual reference the appropriate Federal Aviation Regulations listed in the Supplemental Information section of this safety attribute inspection (SAI)?</p> <p>SRRs: 121.135(b)(3)</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
4.	<p>Does the certificate holder's manual contain the duties and responsibilities for personnel who will accomplish the Maintenance Certificate Requirements process?</p> <p>SRRs: 121.135(b)(2)</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
5.	<p>Does the certificate holder's manual include instructions and information for personnel to meet the requirements of the Maintenance Certificate Requirements process?</p> <p>SRRs: 121.135(a)(1); 121.378(a); 121.378(b)</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain

SAI SECTION 1 - PROCEDURES ATTRIBUTE Drop-Down Menu	
1.	No procedures, policy, instructions or information specified.
2.	Procedures or instructions and information do not identify (who, what, when, where, how).
3.	Procedures, policy or instructions and information do not comply with CFR.
4.	Procedures, policy or instructions and information do not comply with FAA policy and guidance.
5.	Procedures, policy or instructions and information do not comply with other documentation (e.g., manufacturer's data, Jeppesen's Charts, etc.).
6.	Procedures, policy or instructions and information unclear or incomplete.
7.	Documentation quality (e.g., unreadable or illegible).
8.	Procedures, policy or instructions and information inconsistent across Certificate Holder manuals (FOM - Flight Operations Manual to GMM - General Maintenance Manual, etc.).
9.	Procedures, policy or instructions and information inconsistent across media (e.g., paper, microfiche, electronic).
10.	Resource requirements incomplete (personnel, facilities, equipment, technical data).
11.	Other.

SAI SECTION 2 - CONTROLS ATTRIBUTE

Objective: Controls are checks and restraints designed into a process to ensure a desired result. The questions in this section of the DCT are designed to assist the inspector in determining if checks and restraints are designed into the process to ensure the desired result is achieved. Controls should be written into the manual system to ensure that the most important manual policies, procedures, or instructions and information will be followed.

Controls may be in the form of administrative controls, which are secondary or supplemental written procedures. Like written procedures, administrative controls also need to provide answers to questions regarding who, what, when, where, and how. Controls may also be in the form of engineered controls, such as automated features or mechanical actions or devices (i.e., safety devices, warning devices, etc.).

Tasks

To meet this objective, the inspector must accomplish the following tasks:

1. Review the control questions below.
2. Review the certificate holder's policies, procedures, instructions, and information to gain an understanding of the controls that it has documented.

Questions

	To meet this objective, the inspector must answer the following questions:	
1.	Are the following controls built into the Maintenance Certificate Requirements process:	
1.1.	Is there a control or controls in place to ensure that personnel, directly in charge of maintenance, are available for consultation when supervising personnel?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
1.2.	Is there a control or controls in place to ensure that personnel directly in charge of maintenance are adequately trained?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
1.3.	Is there a control or controls in place to ensure that personnel directly in charge of maintenance are appropriately certificated?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
1.4.	Is there a control or controls in place to ensure that required inspection items are performed by an authorized and appropriately certificated airman?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
1.5.	Is there a control or controls in place to ensure that aircraft airworthiness releases are signed by an authorized and properly certificated airman?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
1.6.	Is there a control or controls in place to ensure that aircraft log entries are signed by an authorized and properly certificated airman?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
2.	Does the certificate holder have a documented method for assessing the impact of any changes made to the controls in the Maintenance Certificate Requirements process?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain

SAI SECTION 2 - CONTROLS ATTRIBUTE Drop-Down Menu	
1.	No controls specified.
2.	Documentation for the controls do not identify (who, what, when, where, how).
3.	Controls incomplete.
4.	Controls could be circumvented.
5.	Controls could be unenforceable.
6.	Resource requirements incomplete (personnel, facilities, equipment, technical data).
7.	Other.

SAI SECTION 3 - PROCESS MEASUREMENT ATTRIBUTE

Objective: Process measurements are used by the certificate holder to measure and to assess its processes, to identify and to correct problems or potential problems, and to make improvements to the processes. The questions in this section of the DCT are designed to assist the inspector in determining if the certificate holder measures or assesses information to identify, analyze, and document potential problems with the process. Process measurements are a certificate holder's internal evaluation or auditing of the most important policies, procedures, or instructions and information associated with an element.

To prevent the duplication of work, process measurements are most commonly addressed through a combination of auditing features contained in both the certificate holder's safety program/internal evaluation program (for operations and cabin safety related issues) and the auditing function of the Continuous Analysis and Surveillance System (for airworthiness or maintenance/inspection related issues). The director of safety and the quality assurance department often work together to accomplish this function for the certificate holder. This approach requires amendment of the safety program/internal evaluation program audit forms or checklists and the Continuous Analysis and Surveillance System audit forms or checklists to include the specific process measurements for each element.

Tasks

	To meet this objective, the inspector must accomplish the following tasks:
1.	Review the process measurement questions below.
2.	Review the certificate holder's policies, procedures, instructions, and information to gain an understanding of the process measurements that it has documented.

Questions

	To meet this objective, the inspector must answer the following questions:	
1.	Does the certificate holder's Maintenance Certificate Requirements process include the following process measurements:	
1.1.	Is there a process measurement or process measurements that would identify if personnel directly in charge of maintenance were not available for consultation when supervising personnel?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
1.2.	Is there a process measurement or process measurements that would identify if personnel directly in charge of maintenance were not adequately trained?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
1.3.	Is there a process measurement or process measurements that would identify if personnel directly in charge of maintenance were not appropriately certificated?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
1.4.	Is there a process measurement or process measurements that would identify if required inspection items were not performed by appropriately certificated and authorized personnel?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
1.5.	Is there a process measurement or process measurements that would identify if aircraft airworthiness releases were not signed by appropriately certificated and authorized personnel?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
1.6.	Is there a process measurement or process measurements that would identify if aircraft log entries were not signed by appropriately certificated and authorized personnel?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
2.	Is there a process measurement or process measurements that would reveal if the certificate holder's policy, procedures, instructions, and information contained in its manual were not followed?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain

3.	Does the certificate holder document its process measurement methods and results?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
4.	Does the certificate holder s manual provide for the use of process measurement results to improve its programs?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
5.	Does the organization that conducts the process measurements have direct access to the person with the responsibility for the Maintenance Certificate Requirements process?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain

SAI SECTION 3 - PROCESS MEASUREMENT ATTRIBUTE Drop-Down Menu	
1.	No process measurements specified.
2.	Documentation for the process measurements does not identify (who, what, when, where, how).
3.	Inability to identify negative findings.
4.	No provisions for implementing corrective actions.
5.	Ineffective follow-up to determine effectiveness of corrective actions.
6.	Resources requirements (personnel, facilities, equipment, technical data).
7.	Other.

SAI SECTION 4 - INTERFACES ATTRIBUTE

Objective: Interfaces are used by the certificate holder to identify and to manage the interactions between processes. The questions in this section of the DCT are designed to assist the inspector in determining whether or not interactions between the policies, procedures, or instructions and information associated with other independent processes within the certificate holder's organization are documented. Written policies, procedures, or instructions and information that are interrelated and located in different manuals within the certificate holder's manual system must be consistent and complement each other. For the interfaces to be effectively managed, it is not only important to identify what the interfaces are, but it is imperative to document the specific location of the interfaces within the certificate holder's manual system.

Tasks

	To meet this objective, the inspector must accomplish the following tasks:
1.	Review the interfaces associated with the Maintenance Certificate Requirements process that have been identified along with the individual questions in section 1, Procedures, of this DCT.
2.	Review the certificate holder's policies, procedures, instructions, and information to gain an understanding of the interfaces that it has documented.

Questions

	To meet this objective, the inspector must answer the following questions: Note: The design job task items (JTIs) displayed with the questions in section 1, Procedures, of this DCT identify potential interfaces (by element number) for this element.	
1.	Does the certificate holder's manual properly address the interfaces that are identified along with the questions in section 1, Procedures of this DCT?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
2.	Does the certificate holder's manual document a method for assessing the impact of any changes to the associated interfaces within the Maintenance Certificate Requirements process?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain

SAI SECTION 4 - INTERFACES ATTRIBUTE Drop-Down Menu	
1.	No interfaces specified.
2.	The following interfaces not identified within the Certificate Holder's manual system:
3.	Interfaces listed are inaccurate.
4.	Specific location of interfaces not identified within the manual system.
5.	Other

SAI SECTION 5 - MANAGEMENT RESPONSIBILITY & AUTHORITY ATTRIBUTES

Objective: The questions in this section of the DCT address the responsibility and authority of the process. They are designed to assist the inspector in determining if there is a clearly identifiable, qualified, and knowledgeable person who is responsible for the process, is answerable for the quality of the process, and has the authority to establish and modify the process. (The person with the authority may or may not be the person with the responsibility.)

Tasks

	To meet this objective, the inspector must accomplish the following tasks:
1.	Identify the person who has overall responsibility for the Maintenance Certificate Requirements process.
2.	Identify the person who has overall authority for the Maintenance Certificate Requirements process.
3.	Review the duties and responsibilities of the person(s), documented in the certificate holder's manual.
4.	Review the appropriate organizational chart.

Questions

	To meet this objective, the inspector must answer the following questions:	
1.	Does the certificate holder's manual clearly identify who is responsible for the quality of the Maintenance Certificate Requirements process?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain Name/Title:
2.	Does the certificate holder's manual clearly identify who has authority to establish and modify the policies, procedures, instructions, and information for the Maintenance Certificate Requirements process?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain Name/Title:
3.	Does the certificate holder's manual include the duties and responsibilities of those who manage the work required by the Maintenance Certificate Requirements process? SRRs: 121.135(b)(2)	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
4.	Does the certificate holder's manual include instructions and information for those who manage the work required by the Maintenance Certificate Requirements process? SRRs: 121.135(a)(1)	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
5.	Does the certificate holder's manual clearly and completely document the responsibility for this position?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
6.	Does the certificate holder's manual clearly and completely document the authority for this position?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
7.	Does the certificate holder's manual clearly and completely document its qualifications standards for the person having responsibility for the Maintenance Certificate Requirements process?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
8.	Does the certificate holder's manual clearly and completely document its qualification standards for the person having authority to establish and modify the certificate holder's policies, procedures, instructions, and information for the Maintenance Certificate Requirements process?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain

9.	Does the certificate holder's manual clearly and completely document the procedures for delegation of authority for the Maintenance Certificate Requirements process?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
----	---	--

SAI SECTION 5 - MANAGEMENT RESPONSIBILITY & AUTHORITY ATTRIBUTES Drop-Down Menu	
1.	Not documented.
2.	Documentation unclear.
3.	Documentation incomplete.
4.	Other.